

REMARKS

In response to the Office Action dated April 27, 2005, Applicants respectfully request reconsideration based on the above amendments and the following remarks. Applicants respectfully submit that the claims as presented are in condition for allowance.

Claims 1-3 and 5-20 were rejected under 35 U.S.C. § 103 as being unpatentable over Hudgins in view of Giboney. This rejection is traversed for the following reasons.

Claim 1 recites features from canceled claim 2 and recites, "a heat spreader having a first and second surface, the first surface in thermal contact with the electronic chip set and adapted to provide unimpeded heat flow, and the second surface in thermal contact with the optoelectronic transducer, the first surface being orthogonal to the second surface." In the exemplary embodiment shown in Applicants' Figure 1, the chips 110 and the optoelectronic transducer 160 are positioned on different, orthogonal sides of head spreader 200.

This feature is not taught by Hudgins. In Hudgins, the chips 46 and the optoelectronic package 60 are positioned on the same side of the cooling core 50. Giboney was relied on for disclosing an optical coupling guide, but fails to cure the deficiencies of Hudgins discussed above.

For at least the above reasons, claim 1 is patentable over Hudgins in view of Giboney. Claims 3, 5-10 and 12-14 variously depend from claim 1 and are patentable over Hudgins in view of Giboney for at least the reasons advance with reference to claim 1.

Claim 11 has been placed in independent form. Claim 11 recites a chip set, a substrate and a printed circuit board. In the exemplary embodiment shown in Applicants' Figure 1, chip 110, substrate 120 and printed circuit board 180 are shown. Claim 11 recites "wherein the flexible printed circuit board is absent electrical signal interconnections except for electrical signal interconnections between the substrate and the optoelectronic transducer." In Hudgins, the flexible circuit 101 provides a connection between the optoelectronic module 60 and the printed circuit board 30b. This is contrary to claim 11. Hudgins does not teach a chip, substrate and printed circuit board along with the connection by the flexible printed circuit board in claim 11.

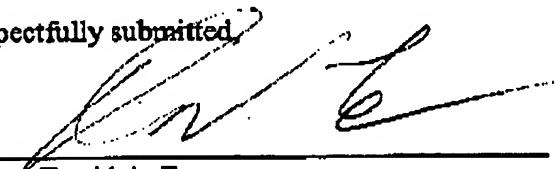
For at least the above reasons, claim 11 is patentable over Hudgins in view of Giboney.

Claim 4 was rejected under 35 U.S.C. § 103 as being unpatentable over Hudgins in view of Giboney and Nakao. Nakao was relied upon for disclosing ceramic material for the substrate, but fails to cure the deficiencies of Hudgins and Giboney discussed above. Claim 4 depends from claim 1 and is patentable over Hudgins in view of Giboney and Nakao for at least the reasons advance with reference to claim 1.

In view of the foregoing remarks and amendments, Applicants submit that the above-identified application is now in condition for allowance. Early notification to this effect is respectfully requested.

If there are any charges with respect to this response or otherwise, please charge them to Deposit Account 09-0463.

Respectfully submitted,

By: 

David A. Fox
Registration No. 38,807
CANTOR COLBURN LLP
55 Griffin Road South
Bloomfield, CT 06002
Telephone (860) 286-2929
Facsimile (860) 286-0115
Customer No. 46429

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